

REMARKS

The application has been reviewed in light of the Office Action dated August 25, 2005. Claims 1-30 are pending, with claims 1, 6, 9, 14, 17, 22, 25 and 28-30 being in independent form. By this Amendment, the specification has been amended to correct typographical errors therein.

Claims 1, 2, 6, 7, 9, 10, 14, 15, 17, 18, 22, 23, 25 and 28-30 were rejected under 35 U.S.C. § 103(a) as purportedly obvious over the prior art discussed in the background section of this application, in view of U.S. Patent No. 6,108,100 to McVey et al. Claims 3-5, 8, 11-13, 16, 19-21, 24, 26 and 27 were rejected under 35 U.S.C. § 103(a) as purportedly obvious over the background art in view of McVey and further in view of U.S. Patent No. 5,461,704 to Wakabayashi et al.

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claims 1, 6, 9, 14, 17, 22, 25 and 28-30 are patentable over the cited art, for at least the following reasons.

This application relates to multi-function apparatuses which can include a copy function and a facsimile function. As discussed in the Background section of the application, conventional multi-function apparatuses typically pre-allocate areas in image memory for the copy function and facsimile function, respectively. Many multi-function apparatuses also include a feature of an optional add-on expansion memory. However, when an expansion memory is added to a conventional multi-function apparatus, the expansion memory is generally used only for the copying function. If it is desired to expand the facsimile image memory area, two expansion memories (one for the copy function and the other for the facsimile function) are generally required to be added to the conventional multi-function apparatus.

Applicant devised improvements to a multi-function apparatus. According to one

improvement, the multi-function apparatus rearranges its memory assignments of a basic memory together with an expansion memory with an effect of expanding the first and second memory areas storing data of the copying and of facsimile functions, respectively, to effectively perform the operations of the copying and facsimile functions when the expansion memory is connected to the socket (independent claims 1, 9, 17, 25 and 29). Another improvement is directed to a multi-function apparatus wherein the facsimile function is optional, and memory assignments of memory areas of a basic memory and an expansion memory are arranged so that a specific memory area for the optional facsimile function is allocated within the basic memory when the expansion memory is connected to the socket and the optional facsimile function is made available (independent claims 6, 14, 22, 28 and 30).

These features are not disclosed or suggested by the background art.

McVey, as understood by Applicant, is directed to an electronic device such as a printer wherein an expansion memory unit is added to the device to accommodate additional data or executable code. McVey discloses that the electronic device includes a processor and a memory controller wherein the memory controller is configured to provide memory addresses to the processor, the processor executes executable code in locations at the addresses provided by the memory controller, and the memory controller is configured to copy executable program code onto a RAM in the expansion memory and switch from providing address locations in a ROM to address locations in the RAM, by changing the address map, while the processor is executing executable code.

However, McVey does not provide any specific teachings or suggestions directed to a multi-function apparatuses including a copy function and a facsimile function, wherein areas in image memory are allocated for the copy function and facsimile function, respectively. McVey is

concerned with the addressing of executable code when an expansion memory is added and the executable code is copied from ROM to (a RAM of) the expansion memory.

Moreover, Applicant does not find teaching or suggestion in McVey of (a) a multi-function apparatus which rearranges its memory assignments of a basic memory together with an expansion memory with an effect of expanding the first and second memory areas storing data of the copying and of facsimile functions, respectively, to effectively perform the operations of the copying and facsimile functions when the expansion memory is connected to the socket, as provided by the claimed invention of independent claims 1, 9, 17, 25 and 29, or (b) a multi-function apparatus wherein memory assignments of memory areas of a basic memory and an expansion memory are arranged so that a specific memory area for an optional facsimile function is allocated within the basic memory when the expansion memory is connected to the socket and the optional facsimile function is made available, as provided by the claimed invention of independent claims 6, 14, 22, 28 and 30.

Wakabayashi, as understood by Applicant, is directed to an accessory control device (such as a plug-in cartridge) which can be installed in an electronic apparatus (such as a printer) to modify the functionality or operating features of the electronic apparatus. Wakabayashi was cited in the Office Action as purportedly disclosing restoring the settings of the printer when the plug-in cartridge is removed.

Applicant simply does not find disclosure or suggestion in the cited art, however, of (a) a multi-function apparatus which rearranges its memory assignments of a basic memory together with an expansion memory with an effect of expanding the first and second memory areas storing data of the copying and of facsimile functions, respectively, to effectively perform the operations of the copying and facsimile functions when the expansion memory is connected to the socket, as

provided by the claimed invention of independent claims 1, 9, 17, 25 and 29, or (b) a multi-function apparatus wherein memory assignments of memory areas of a basic memory and an expansion memory are arranged so that a specific memory area for an optional facsimile function is allocated within the basic memory when the expansion memory is connected to the socket and the optional facsimile function is made available, as provided by the claimed invention of independent claims 6, 14, 22, 28 and 30.


Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claims 1, 6, 9, 14, 17, 22, 25 and 28-30, and the claims depending therefrom, are patentable over the cited art.

In view of the remarks hereinabove, Applicant submits that the application is now in condition for allowance. Accordingly, Applicant earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,

  
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